

Specifications of ECHO machine

1. System should be a fully digital colour Doppler echocardiography system.
 - a) System should offer high performance ultrasound and colour Doppler in a zero footprint,
compact unit, weighing less than or equal to 6 KGs.
 - b) System should work on battery and mains with minimum one hour battery operations.
 - c) Should be supplied with trolley for easy transport from patient to patient.
2. System should use digital beam former technology, capable of incorporating future techniques, should be upgradable through software and hardware.
3. System should have Multi array Probe technology for Phased Array, Linear Array, and curved Array and should support TE.
4. System should have high resolution, flicker free at least 10" TFT LCD monitor.
5. The system shall capable of providing the following imaging and operating modes.
 - a) 2D, M-mode, Colour M-Mode
 - b) Colour Flow Doppler Imaging
 - c) Fully Steerable Pulsed Doppler
 - d) Fully Steerable Continuous Wave Recall
 - e) Digital cine replay of all imaging and Doppler modalities.
 - f) On screen Cine Storage & Image recall
 - g) Digital Image Storage and Patient Archive with true scanner frame rates.
 - h) Full measurement and analysis capabilities. Both on line and offline preferable.
 - i) Imaging frequencies from 1 MHZ to 15 MHZ
 - j) Review of stored ultrasound images.
 - k) User adjustable B Colorization maps, gain settings, colour Doppler baseline, angle correction and other important parameters with live/frozen/archived images/loops.
6. System should have minimum keys and knobs for easy patient data, annotation and report entries.
7. Should have a display of single, dual images side by side.
8. System should have a programmable architecture with data processing of phase, amplitude and frequency with raw data digital replay for cine/single loops allowing the adjustable of all major parameter and measurements.
9. Should have a built-in digital archival system for image storage and archival with reporting facilities. The internal HDD should atleast 4 GB. CD/DVD/USB drives should be available.

10. System should have on board, in built training and education guide/tutorial/ software for easy access of video images/library.
11. System should have user definable report formats with inbuilt reporting text.
12. Should have a zoom capability with live/frozen/stored images. Should have capability of zooming the archived cine loops.
13. Should be DICOM 3 complaint.
14. Should be directly compatible with color inkjet printers.
15. Should have 3 or more tissue harmonic imaging frequencies in all imaging modes.
16. Colour rotating (360 deg) M Mode cursor.
17. Should be quoted with
 - i) Neonatal phased array cardiac probe with imaging frequencies from 5 MHZ to 8MHZ s
Small footprint between 10-14 mm.
 - ii) Linear 6-13 MHZ probe with small foot print(20-25mm)
Printer, UPS for the entire set up
18. System inclusive of screen and transducers should permit liquid disinfection and should be splash proof.
19. Should be FDA approved. Demonstration compulsory
20. Training of hospital engineers & staff.
21. Comprehensive warranty (3 years) & 5 years CMC after completion of warranty period.
22. Rates of consumables & accessories should be freezed for 8 years.
23. Operating and detailed service manual should be supplied.
24. Must submit User list and performance report